IN THE CLAIMS

The set of claims presented below is intended to replace all previous claim sets presented in this application.

Claims 1-7 (Cancelled).

8. (Original) A method of forming a capacitor comprising providing a conductive oxide electrode, depositing a first layer of a high dielectric constant oxide dielectric material on said conductive oxide electrode, oxidizing said conductive oxide electrode and said first layer of said high dielectric constant oxide dielectric material under oxidizing conditions, depositing a second layer of said high dielectric constant oxide dielectric material on said first layer of said high dielectric constant oxide dielectric material, depositing an upper layer electrode on said second layer of said high dielectric constant oxide dielectric material, and oxidizing said upper layer electrode under oxidizing conditions.

9. (Original) A method as claimed in claim 8 wherein said upper layer electrode is oxidized using a gas plasma.

10. (Original) A method as claimed in claim 9 wherein said gas plasma oxidation is carried out at a temperature in the range of from about 250° to about 500°C.

11. (Previously presented) A method of forming a capacitor comprising providing a conductive oxide electrode, depositing a first layer of a high dielectric constant oxide dielectric material on said conductive oxide electrode, oxidizing said conductive oxide electrode and said first layer of said high dielectric constant oxide dielectric material under oxidizing conditions, depositing a second layer of said high dielectric constant oxide dielectric material on said first layer of said high dielectric constant oxide dielectric material, depositing an upper layer electrode on said second layer of said high dielectric constant oxide dielectric material, depositing a gas permeable electrode on said upper layer electrode, and oxidizing said upper layer electrode through said gas permeable electrode.

12. (Original) A method as claimed in claim 11 wherein said gas permeable electrode comprises platinum.

Claims 13-39 (Cancelled)

40.(Previously presented) A method of forming a capacitor comprising providing a conductive oxide electrode selected from the group consisting of RuO_x and IrO_x, depositing a first layer of a dielectric material selected from the group consisting of Ta_2O_5 and $Ba_xSr_{(1-x)}TiO_3$ on said conductive oxide electrode, oxidizing said conductive oxide electrode and said first layer of said dielectric material with a gas plasma such that at least the surface area of said conductive oxide electrode is provided with enough oxygen to provide stability with said first layer of dielectric material, depositing a second layer of said dielectric material on said first layer of said dielectric material, depositing an upper layer electrode on said second layer of said dielectric material, and oxidizing said upper layer electrode.

41.(Original) A method as claimed in claim 40 wherein said conductive oxide electrode and said first layer of said dielectric material are oxidized using a gas selected from the group consisting of O_2 and O_3.

42.(Original) A method as claimed in claim 40 wherein the oxidation is carried out at a temperature in the range of from about 250° to about 500°C.

43.(Original) A method as claimed in claim 40 wherein said upper layer electrode is oxidized using a second gas plasma in an oxidizing environment.

44.(Original) A method as claimed in claim 43 wherein the oxidation of said upper layer electrode is carried out at a temperature in the range of from about 250° to about 500°C.

45.(Original) A method as claimed in claim 40 wherein said upper layer electrode is selected from the group consisting of RuO_x and IrO_x.

46.(Original) A method as claimed in claim 40 wherein said conductive oxide electrode comprises RuO_x and said first layer of said dielectric material comprises Ta_2O_5.

47. (Original) A method as claimed in claim 46 further comprising oxidizing the surface of said conductive oxide electrode prior to depositing said first layer of said dielectric material.

48. (Original) A method as claimed in claim 47 wherein the surface of said conductive oxide electrode is oxidized at a temperature in the range of from about 400° to about 475°C.

49. (Original) A method as claimed in claim 47 wherein the surface of said conductive oxide electrode is oxidized in an atmosphere containing a gas selected from the group consisting of O_2,O_3, and N_2O.

50. (Original) A method of forming a capacitor comprising providing a conductive oxide electrode selected from the group consisting of RuO_x and IrO_x, depositing a first layer of a dielectric material selected from the group consisting of Ta_2O_5 and $Ba_xSr_{(1-x)}TiO_3$ on said conductive oxide electrode, oxidizing said conductive oxide electrode and said first layer of said dielectric material using a gas plasma under oxidizing conditions, depositing a second layer of said dielectric material on said first layer of said dielectric material, oxidizing said second layer of said dielectric material, depositing an upper layer electrode on said second layer of said dielectric material, and oxidizing said upper layer electrode.

Claims 51-56 (Cancelled)

57.(Original) A method as claimed in claim 50 wherein said second layer of said dielectric material is oxidized by rapid thermal oxidation.

58.(Original) A method as claimed in claim 57 wherein the oxidation is carried out at a temperature less than about 700°C.

59. (Original) A method as claimed in claim 57 wherein the oxidation is carried out in an atmosphere containing a gas selected from the group consisting of O_2 and N_2O.

60. (Original) A method as claimed in claim 50 wherein said upper layer electrode is oxidized using a gas plasma under oxidizing conditions.

61. (Original) A method as claimed in claim 60 wherein the oxidation is carried out at a temperature in the range of from about 250° to about 500°C.

62. (Original) A method as claimed in claim 50 further comprising depositing a gas permeable electrode on said upper layer electrode prior to oxidizing said upper layer electrode.

63. (Original) A method as claimed in claim 62 wherein said gas permeable electrode comprises platinum.

Claims 64-106 (Cancelled)